

Predicting Marital Satisfaction Based on Worry Domains and Psychosocial Adjustment in Female Diabetic Patients

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ABSTRACT

Objective : The purpose of this research is to examine a predicting model of marital satisfaction based on worry domains and psychosocial adjustment in female diabetic patients (referred to specialized diabetes clinics in Tehran) in 2023.

Methods: The current research is a correlational design based on structural equation modeling. The statistical population included all married people with type 2 diabetes (age range 30 to 55 years) referring to specialized diabetes clinics in Tehran in the summer and fall of 2023, which are 2143 people. The sample included 412 married female patients who were selected by systematic random sampling. The research tools of The Worry Domains Questionnaire (WDQ) (Tallis et al., 1992), The Psychosocial Adjustment Scale (Derogatis & Derogatis, 1990), and Nathan H.'s Marital Satisfaction Questionnaire. In order to analyze the hypotheses, the structural equation method via AMOS software was used.

Results: Results showed a significant negative relationship between the worry domains and marital satisfaction and a significant positive relationship between psychosocial adjustment and marital satisfaction. According to the findings, the proposed model has good fit indices. Also, according to the findings, 23 and 38 percent of changes in marital satisfaction are explained by worry domains and psychosocial adjustment, respectively.

Conclusions: The findings support the role of psychosocial adjustment in improving marital satisfaction and the reducing effect of worry domains on marital satisfaction.

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Introduction

Diabetes impacts various facets of an individual's life, encompassing marital relationships, and engenders challenges within these relationships, signifying an association between physical well-being and the absence of chronic ailments with heightened levels of marital contentment, and vice versa. Consequently, conflicts and dissatisfaction within marriage can inflict significant suffering upon individuals afflicted with illness (Yang and Long, 2018). Furthermore, the experience of this disease induces tension in individuals and exerts influence upon their identity, psychosocial dimensions, emotional equilibrium, self-contentment, sense of proficiency and efficacy, social interactions, and interpersonal connections, thereby necessitating adaptation to these circumstances (Afrasiabi Far and Hosni, 2018).

Adaptability pertains to the individual qualities that each person employs to manage their psychosocial well-being and enhance their life. The process of adapting to a chronic illness is a dynamic undertaking perpetually influenced by individual and environmental stimuli (Sadegh Nejad et al., 2019). In this process, the affected individual must confront personal and environmental obstacles to attain an acceptable degree of health, physical, mental, and social functioning, ultimately achieving successful adaptation. Successful adaptation to the challenges stemming from diabetes enhances self-management of the disease and ultimately ameliorates the patient's quality of life. Adaptation within the chronic disease treatment process plays a pivotal role in fostering patient engagement in treatment and facilitating decision-making in treatment and care (Amini, 2018).

Conversely, apprehension can be characterized as a cognitive variable linked to personal performance, the consequences of failure, self-evaluation, or negative prognostication, as well as the comparison of personal capabilities with the achievements of others (Defenbakher, 2017). The worries domains for couples can be categorized into five areas: future goals, occupation, uncertainty (self-assurance), finances, and communication (as cited by Kelly, 2019). Research has demonstrated that worry, stress, severe conflicts, and maladaptive coping strategies for stress are associated with an increased risk of mental disorders, social and occupational impairments, heightened utilization of healthcare services, and physical ailments within society. Certain studies have indicated that worry diminishes the body's resistance to infections and also stimulates the thyroid, pancreas, and pituitary gland. In essence, worry exerts an impact on various physical and psychological aspects of individuals, potentially leading to physical complications (World Health

Organization, 1995). As a fundamental tenet of human rights, women affected by illness possess the right to attain the maximum level of health, just like other segments of society.

On the other hand, it has been demonstrated through various studies that a significant number of women who are afflicted with illness do not actively seek assistance when faced with serious health concerns and issues, particularly those related to family matters. Additionally, a proportion of these women, approximately 25%, do indeed attempt to obtain healthcare when the need arises. However, they are either unable to access or remain unaware of the available care services that could potentially alleviate their problems (Waziri et al., 2017). The significance of this issue is particularly pronounced within developing nations, where the allocation of limited resources necessitates proactive efforts. Consequently, it becomes imperative that all existing models are thoroughly reviewed and research findings are effectively incorporated into proposed interventions aimed at enhancing the provision of health services, ensuring their efficacy. In fact, the conduction of such research not only contributes to the expansion of our knowledge concerning the quality of life and the psychological and marital dynamics experienced by this specific group of individuals, but it also furnishes valuable guidance when selecting cost-effective methods of service provision (World Health Organization, 2014). Given their critical responsibilities and duties, healthcare professionals possess the means to exert a substantial influence on improving the overall quality of married life as well as the physical and psychological well-being of these women. In this regard, an exhaustive search through databases and reputable journals revealed that despite the extensive array of quantitative and qualitative research studies conducted within the country pertaining to the health of these women, a glaring omission regarding the examination of variables relevant to the present study has been identified. Consequently, it becomes essential to explore the psychological and familial statuses of these patients. In essence, the pressing need to conduct this research stems from the prevalence of a significant percentage of women afflicted with this disease, the profound extent of mental and social health-related issues experienced by this particular group, the potential of healthcare interventions to make a substantial impact on their well-being, the unique cultural characteristics and social aspects specific to each country, as well as the lack of a comprehensive study in this domain. Accordingly, given that the studies conducted within our country have thus far failed to address the mental, social, familial, and marital health

concerns of these women, it becomes crucial to tap into their experiences and consult the opinions of experts in order to devise interventions that effectively cater to these concerns. Subsequently, it becomes necessary to conduct studies and establish models that are based on the experiences of these patients. Ultimately, the culmination of these efforts should result in the evaluation of a proposed intervention through the utilization of a quantitative study. Thus, within the realm of this research, our primary objective is to provide a response to the following question: What constitutes the optimal model encompassing worries domains and psychosocial adjustment based on marital satisfaction among married female diabetic patients?

Materials and Methods

According to the aim of this investigation, it falls under the category of applied research. In terms of data collection, it adopts a cross-sectional approach and employs a descriptive analysis method. Furthermore, this study utilizes a correlation design based on the structural equation modeling technique. The statistical population comprises all married women aged between 30 and 55 years with type 2 diabetes who sought treatment at specialized diabetes clinics in Tehran during the summer and fall of 2023, totaling 2143 individuals. The sample for this study consists of 412 married female patients, who were randomly selected from the aforementioned study population.

Instruments

The Worry Domains Questionnaire (WDQ): This questionnaire developed by Tallis et al. (1992), contains 25 questions that measure the areas of concern in 5 areas: future goals, job, uncertainty (self-confidence), finance and communication, and each area includes 5 questions (the reliability of this instrument in foreign studies (Elsandzos and Alma (2009) = 0.91 and in the research of McCarthy et al. (2000) all scales were in the range of 0.72 to 0.88). The reliability of the Persian version has been obtained in Iran as 0.86 (Ahmadi & Mohadinia, 2019). Also, the total score of anxiety was divided into three equal classes and converted into three levels: mild, moderate and severe.

Marital satisfaction questionnaire: This scale was designed by Robert Jones (1973). The purpose of this scale is to estimate a person's satisfaction with marriage. This instrument consists of ten statements about people's marriage, which are scaled on a 7-point Likert scale (strongly agree to strongly disagree). A higher score on this scale indicates that people experience more satisfaction

in their marriage. The components include responsibility towards the family, raising children, self-independence, social activities, money, verbal (dialogue) and non-verbal communication, sexual relations, educational (occupational) progress, spouse's independence, overall satisfaction. Reliability was obtained with Cronbach's alpha method of 95% (Lorenz, 2008). This questionnaire measures the overall level of marital vitality using general single-item indicators. Each question can be used as an independent indicator of marital satisfaction in certain areas of marital interaction. The scoring method for each question is from 1 to 10, and all the questions can be added to get the overall index of marital satisfaction. The range of total scale scores is between 10 and 100. Minimum scores (between 1 and 33), average scores (between 33 and 64) and maximum scores (above 65) are marital satisfaction. The results of Azrin et al.'s research (1973) have shown that this tool is sensitive for measuring change and has shown a significant relationship with the Locke-Wallace couple compatibility scale (Haring et al., 2003). In the research of Isanejad (2007), its correlation with Spanier Marital Quality Scale (RDAS) was 0.71, and the results of confirmatory factor analysis (CFA) confirmed its single-factor structure with excellent fit indices for Iranian society. The reliability of this questionnaire was obtained by the method of internal consistency (Cronbach's alpha) in Haring et al. study (2003) 0.90, in Isanejad's research (2007) 0.94.

Psychosocial adjustment questionnaire: This scale was created by Drugits and Drugits (1990). This scale includes 49 items, which were on a four-point scale from zero to three, from not at all (zero) to completely (3). including seven domains of health care orientation (seven items), work environment (six items), home environment (eight items), sexual relations (six items), family relationship development (five items), social environment (six items) and psychological helplessness (seven items). In the study of Drugits and Drugits (1990), the reliability using Cronbach's alpha for each of the following was reported as 0.47, 0.76, and 0.77 respectively. The construct validity of this scale was reported using exploratory factor analysis using rotation method. Varimax indicated that these seven components are 0.63 in total and each of the subscales explains 18%, 10%, 9%, 8%, 7%, 7% and 5% of the variance of the whole scale, respectively. In general, the examination of the psychometric characteristics of psychosocial adaptation to the disease indicates that this scale has satisfactory reliability and validity indicators. Fakhi et al.

estimated 0.94 and concluded that the translated questionnaire has good validity and reliability for use in Iran. The results of the reliability of the mentioned questionnaire in Khoshnavis et al.'s research (2019) were obtained using Cronbach's alpha of 0.93, which showed that the above instrument has good reliability.

Results

The descriptive findings of the variables are presented in Table 1. Also, the fit indices of the proposed model in the areas of concern, the path coefficients in the areas of concern, the fit indices of the model in the marital satisfaction model based on psycho-social compatibility and the path coefficients related to this model are presented in Tables 2 to 5.

Table 1. Descriptive statistics of research variables

Variable	Mean	SD	Min.	Max.
Relationships	10.01	3.05	1	20
Lack of trust	10.07	3.18	2	19
Aimless future	10.19	3.18	2	19
Work	9.98	3.25	2	19
Financial	9.66	3.10	2	18
Worry domains	49.90	7.12	32	69
Attitude towards the disease	12.12	2.94	5	21
Work environment	7.32	2.62	1	14
Family environment	11.74	2.97	4	20
Sexual relations	9.11	2.77	2	16
Development of family relationships	7.59	2.35	2	15
Social environment	9.17	2.77	2	16
Psychological disorders	10.39	2.91	2	18
Psychosocial adjustment	67.42	7.02	45	84
Marital satisfaction	54.94	8.52	33	79

Table 2. Fit indices of the proposed model in worry domains

Indices	Accepted value	Obtained value
CMIN/DF	< 3	3.090
GFI	> 0.90	0.892
AGFI	> 0.90	0.857
NFI	> 0.90	0.899
IFI	> 0.90	0.905
TLI	> 0.90	0.902
CFI	> 0.90	0.905
RMSEA	< 0.08	0.077

Table 3. Examining the relationship between variables in marital satisfaction based on worries domains

Hypothesis	Path coefficient	T value	P
Relationships → marital satisfaction	-0.24	-4.95	0.001
Lack of trust → marital satisfaction	-0.52	-8.81	0.001
Aimless future → marital satisfaction	-0.12	-2.76	0.006
Work → marital satisfaction	0.014	0.31	0.74
Money → marital satisfaction	-0.44	-7.96	0.001

Table 4. Fit indices of the proposed model in marital satisfaction based on psycho-social compatibility

Indices	Accepted value	Obtained value
CMIN/DF	< 3	3.014
GFI	> 0.90	0.890
AGFI	> 0.90	0.869
NFI	> 0.90	0.90
IFI	> 0.90	0.901
TLI	> 0.90	0.899
CFI	> 0.90	0.901
RMSEA	< 0.08	0.079

Table 5. Examining the relationship between variables

Hypothesis	Path coefficient	T value	p
Attitude towards illness → marital satisfaction	0.227	4.74	0.001
Work environment → marital satisfaction	0.104	2.23	0.026
Family environment → marital satisfaction	0.113	7.49	0.013
Sexual relations → marital satisfaction	0.046	1.012	0.312
Development of family relationships → marital satisfaction	0.325	5.812	0.001
Social environment → marital satisfaction	0.529	8.618	0.001
Psychological disorders → marital satisfaction	0.207	4.204	0.001

Discussion

The data provided in the study demonstrated the appropriateness of the marital satisfaction model, as it pertains to married female diabetic patients. Specifically, the study focused on the areas of concern and psychosocial adjustment in these patients. The results of the study revealed a noteworthy and declining (inverse) correlation between the areas of concern and marital satisfaction. Conversely, a significant and increasing (direct) relationship was observed between psychosocial adjustment and marital satisfaction. The path coefficients derived from the analysis of the relationship between areas of concern and psychosocial adjustment with marital satisfaction further elucidated the findings. It can be concluded that 23% and 38% of the variations in marital

satisfaction can be attributed to the variables of concern and psychosocial adaptation, respectively. Additionally, the research conducted within the studied society indicated no statistically significant association between the forced style variable and marital satisfaction. Notably, the present investigation aligns with the findings of previous research conducted by Johnson et al. (2017). In order to explain this hypothesis, it is important to consider the areas of concern for women with diabetes. It can be posited that the sexual health and fertility of women are negatively impacted by this disease. Moreover, a substantial proportion of women affected by diabetes are of childbearing age, resulting in diminished fertility and increased rates of infertility and abortion. These factors contribute to a reduced quality of married life. Furthermore, cultural and social attitudes towards diabetes contribute to the concerns experienced by women with the disease, ultimately diminishing marital satisfaction.

Regarding psycho-social adaptation, which encompasses various aspects such as the individual's state of mind, their ability to fulfill important societal roles, their level of satisfaction with their physical and mental well-being, as well as a collection of variables commonly studied under the term "quality of life", there exists a delicate equilibrium known as compromise. This compromise can be seen as the delicate balance between internalization and externalization, where an individual constructs a web of relationships in which they position themselves, as elucidated by Shadman (2018). In the case of diabetic women, the exposure to this disease due to other family members empowers them to lead a healthy lifestyle that encompasses both the physical and mental dimensions of their well-being, as highlighted by Toll, Majlesi et al. (2018). These women perceive it as a likely occurrence in their own lives and feel prepared to confront it at any age. However, the protracted duration of the disease, the frequent need for medical follow-up, and the potential disappointments in treatment make the duration of diabetes a risk factor for psychological issues, as identified by Nematpour et al. (2019). Moreover, the duration of diabetes is correlated with a higher likelihood of sexual dysfunctions, leading to a decrease in overall adaptation, as asserted by Elsaka, Tarif et al. (2018).

Tarif et al. (2018) further posit that favorable marital relationships play a pivotal role in fostering greater adaptation, improved quality of life, and enhanced mental, emotional, and social functioning. Additionally, social support emerges as a significant factor that influences an individual's ability to adapt to the challenges posed by diabetes. Wheeler et al. (2019) claim that

adults with diabetes, as the duration of their illness increases, begin to experience feelings of shame and social embarrassment, which in turn have a detrimental impact on their adaptability. Conversely, women tend to face more unsupportive behavior from their families compared to men, with greater psychological pressure exerted upon them, as observed by Maruti et al. (2018). The longer the duration of the disease, the more prevalent these unsupportive behaviors become, further exacerbating the challenges faced by women with diabetes and impeding their ability to adapt to their circumstances.

To address this issue and enhance compatibility within the realm of married life, which is an ongoing and ever-evolving process, couples must possess the necessary skills to not only recognize and manage their emotions, but also to navigate negative emotions and cultivate positive ones. This management of conflict and cultivation of positive emotions is crucial, as emphasized by Garman (2018). In order to foster intimacy and marital compatibility, it is imperative to provide couples, particularly women with diabetes, with the tools and knowledge to effectively manage conflicts, emotions, and the significance of shared understanding within their relationship. They must acquire the ability to regulate their emotions, regain composure, and redirect their attention in a constructive manner. Furthermore, they should strive to develop the skills necessary to regulate and moderate intense emotions, as explicated by Gutman (2018), as marital discord often arises from inappropriate behaviors such as neglect, humiliation, blame, avoidance, and silence. Incompatible couples, due to their inability to control their emotions, are more susceptible to engaging in negative behaviors, thus perpetuating a cycle of conflict and tension. Conversely, couples who possess emotional self-awareness and employ creativity, empathy, and strategies for reducing destructive behaviors can achieve greater harmony within their conflicts and experience a deeper sense of intimacy.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

The studies involving human participants were reviewed and approved by ethics committee of Islamic Azad University.

Author contributions

AE, AM and HM contributed to the study conception and design, material preparation, data collection and analysis. The author contributed to the article and approved the submitted version.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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